

FIG. 1

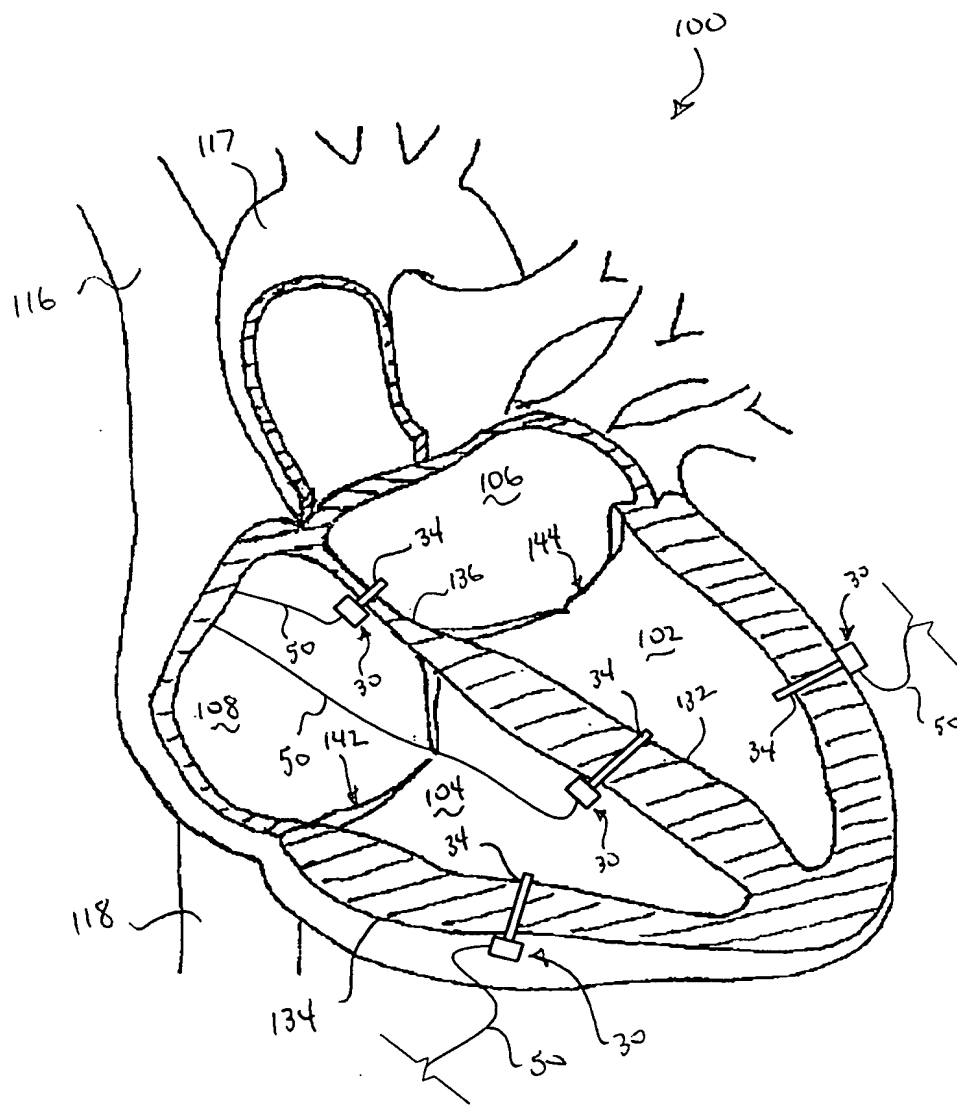


FIG. 2

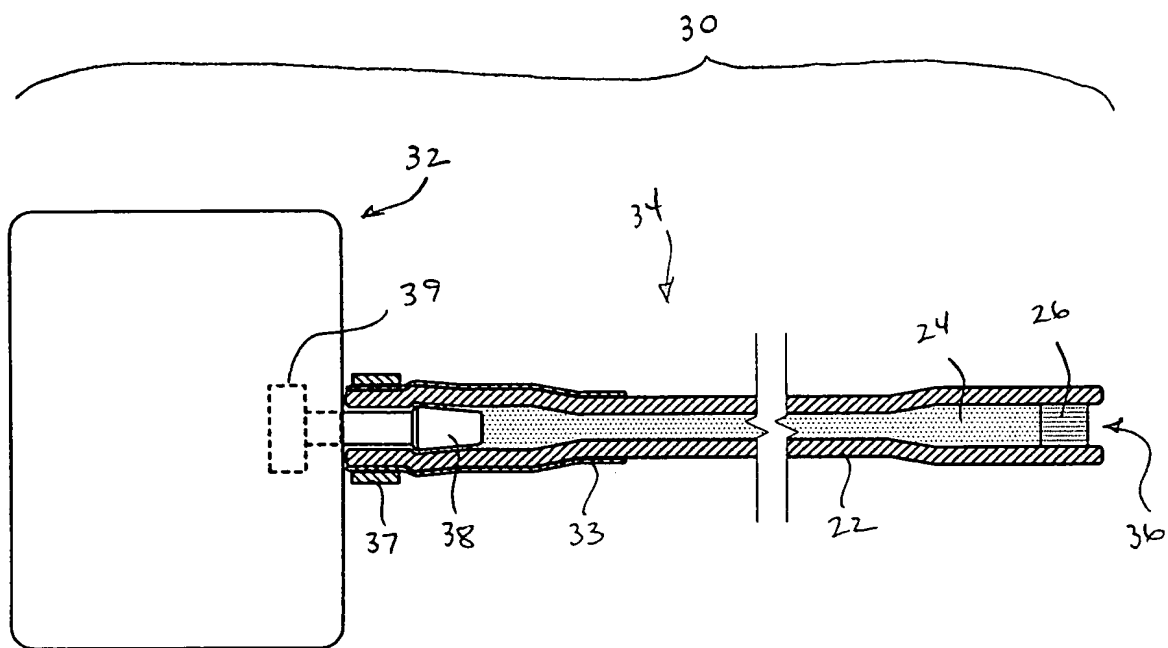


FIG. 3

FIG. 4A

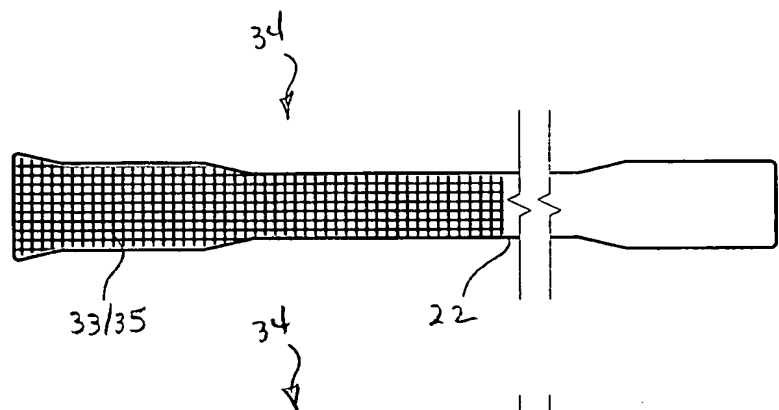


FIG. 4B

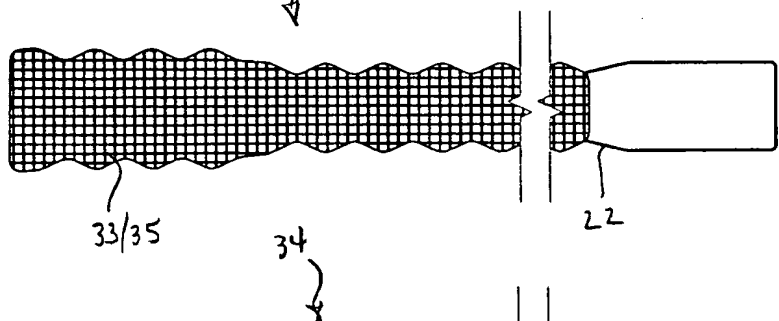


FIG. 4C

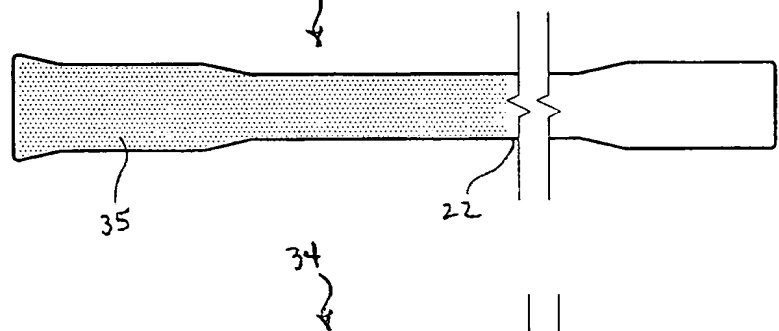


FIG. 4D

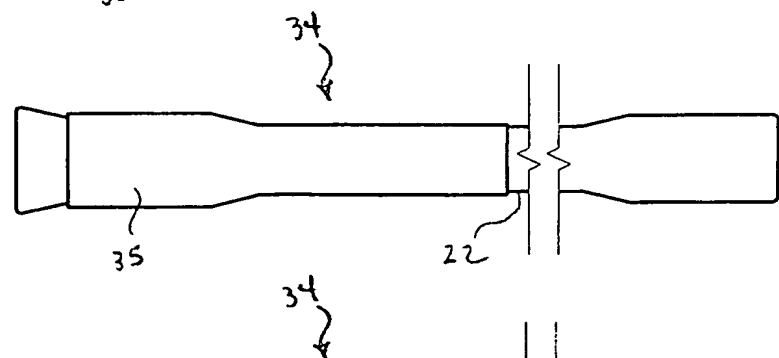


FIG. 4E

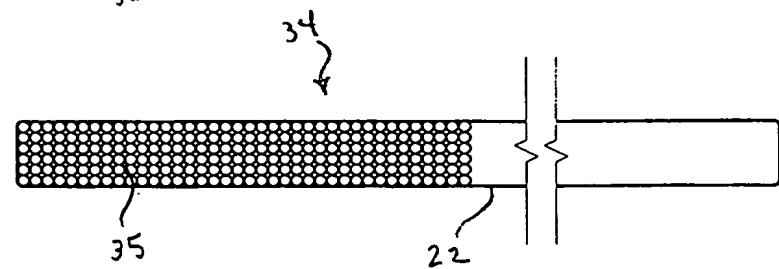


FIG. 5A

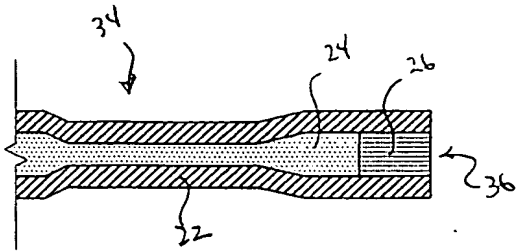


FIG. 5B

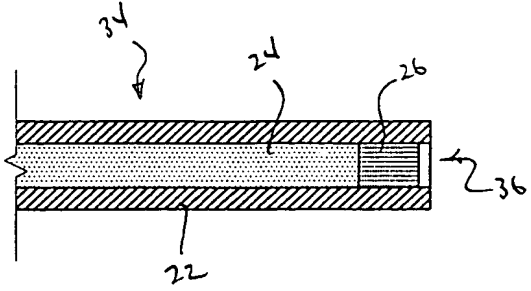


FIG. 5C

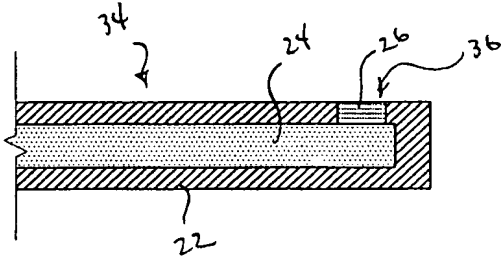


FIG. 5D

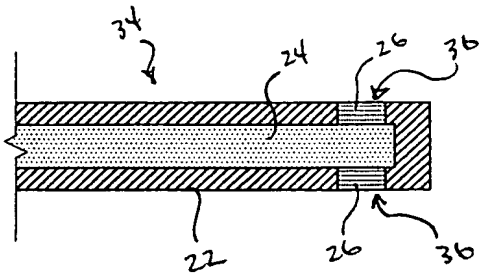


FIG. 5E

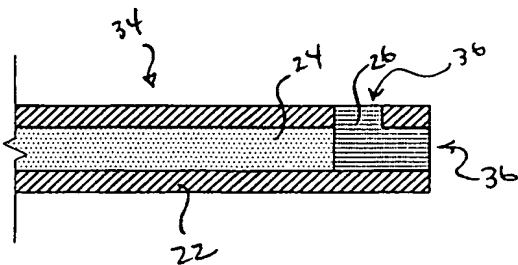


FIG. 5F

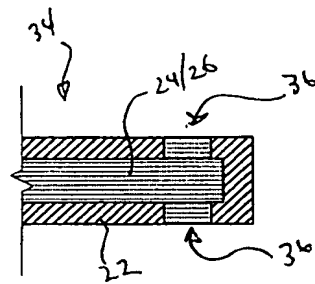


FIG. 5G

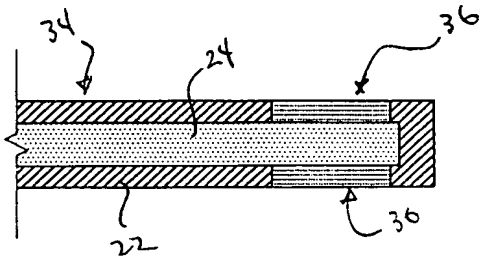


FIG. 5H

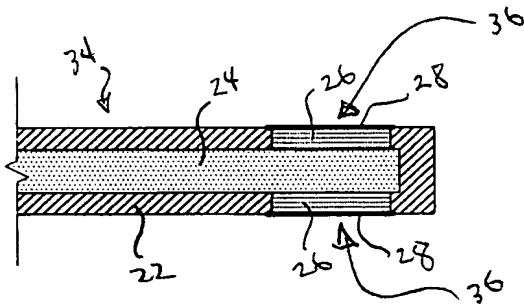


FIG. 5I

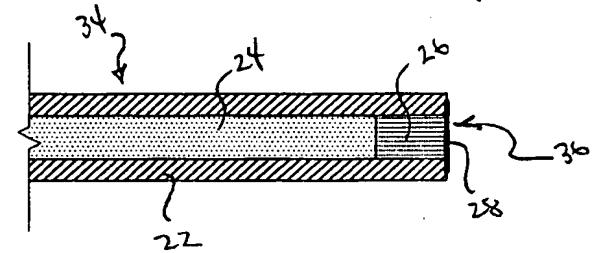


FIG. 5J

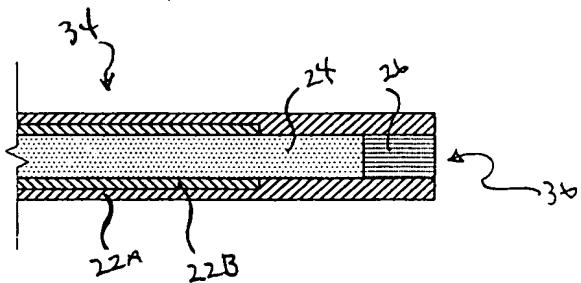


FIG. 5K

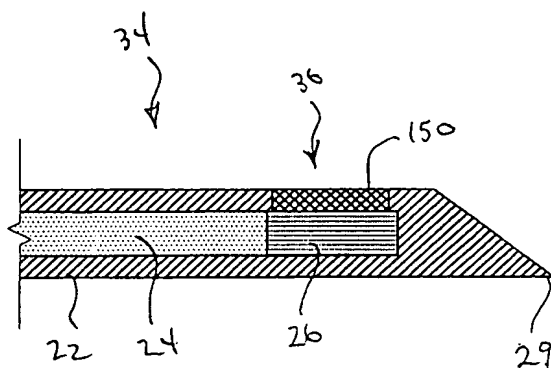


FIG. 5L

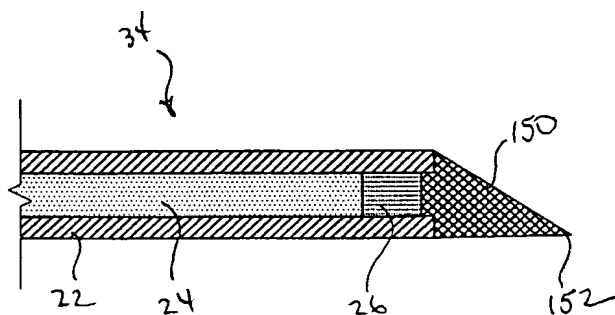


FIG. 5M

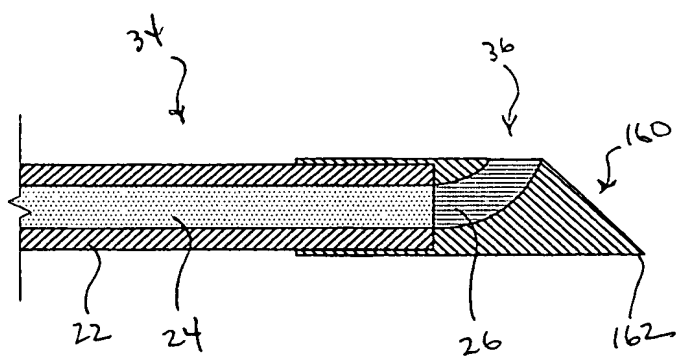


FIG. 5N

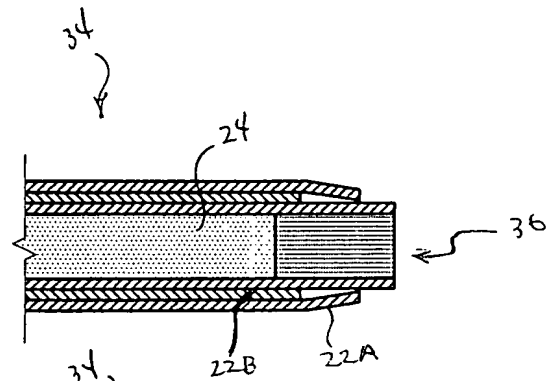


FIG. 5O

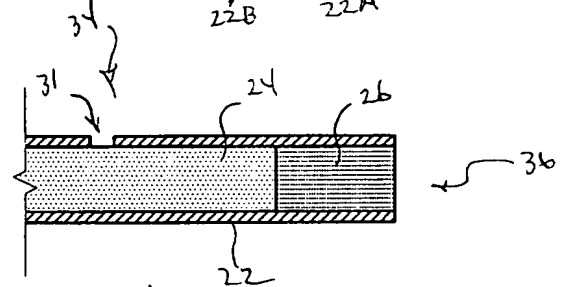


FIG. 5P

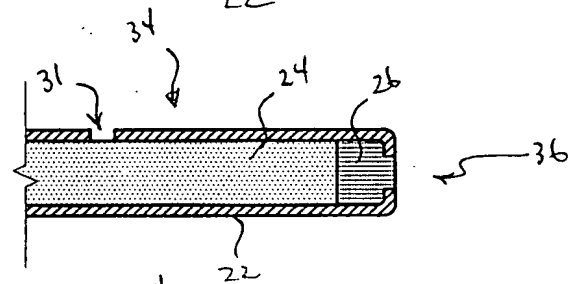


FIG. 5Q

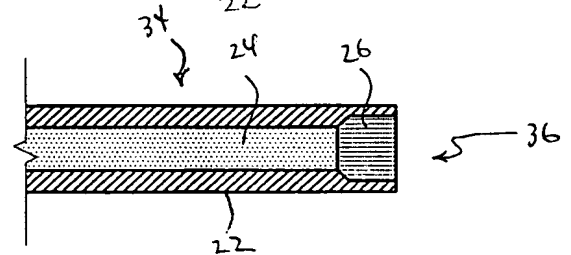


FIG. 5R

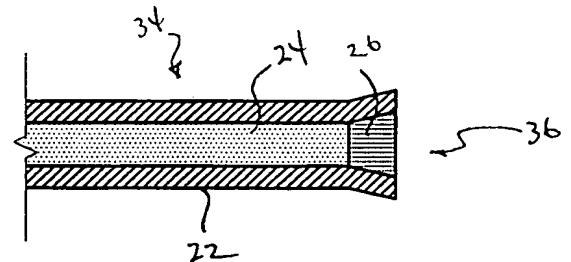


FIG. 5S

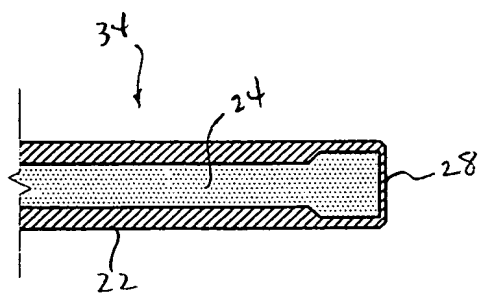


FIG. 5T

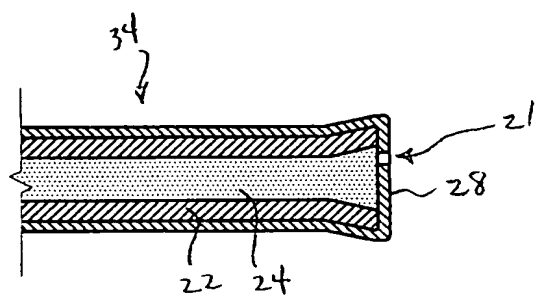


FIG. 5U

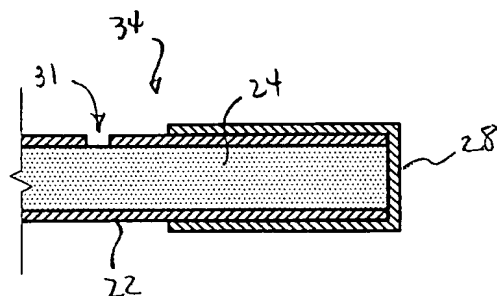


FIG. 5V

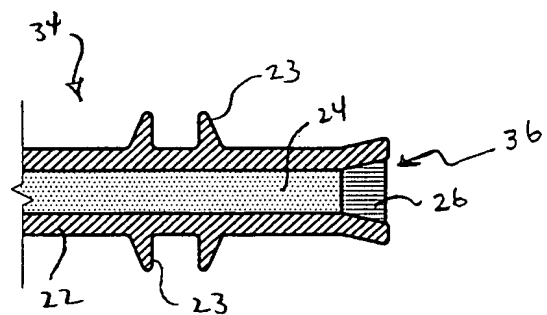
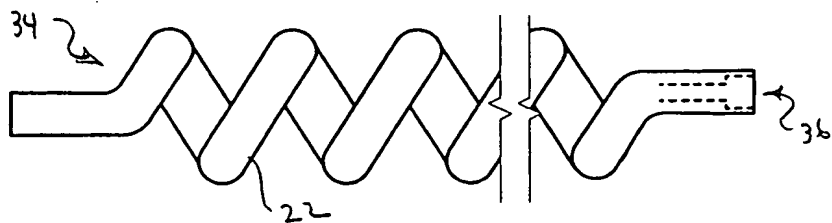


FIG. 5W



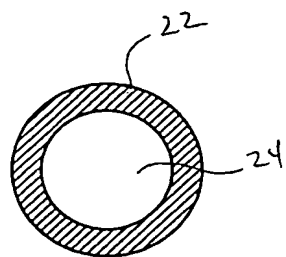


FIG. 6A

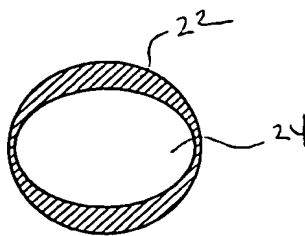


FIG. 6B

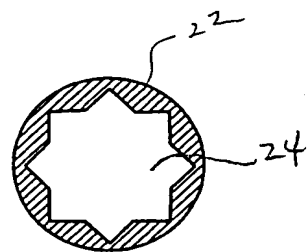


FIG. 6C

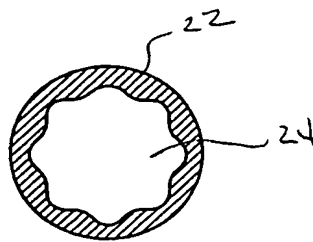


FIG. 6D

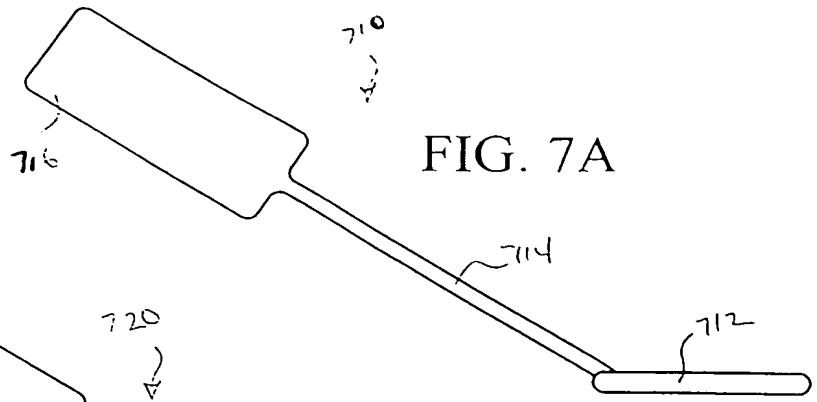


FIG. 7A

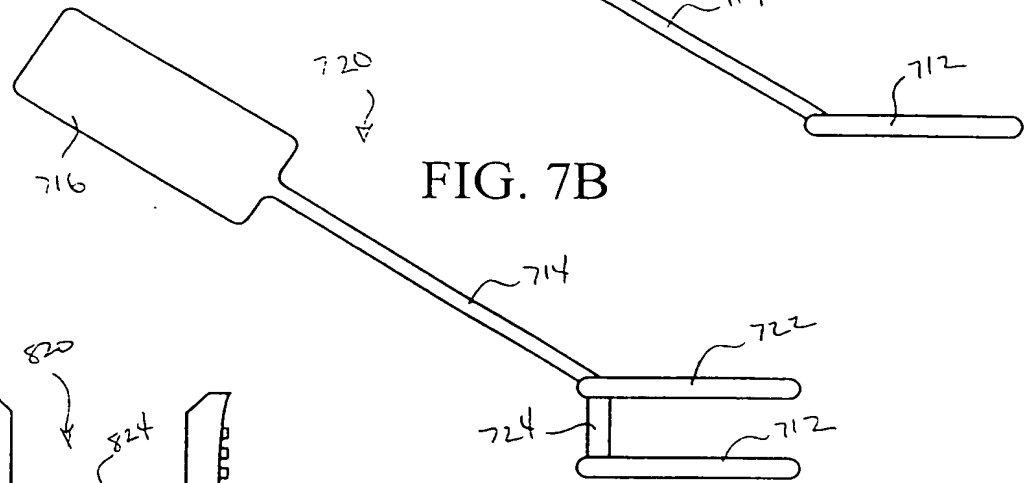


FIG. 7B

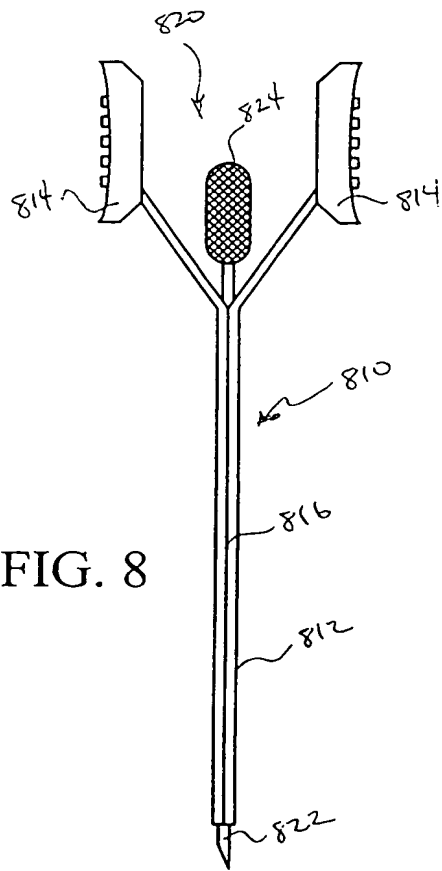


FIG. 8

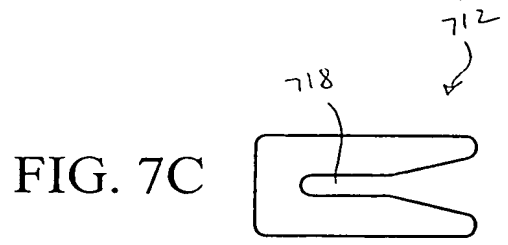


FIG. 7C

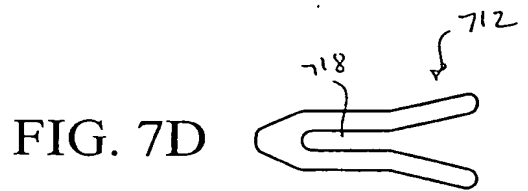


FIG. 7D

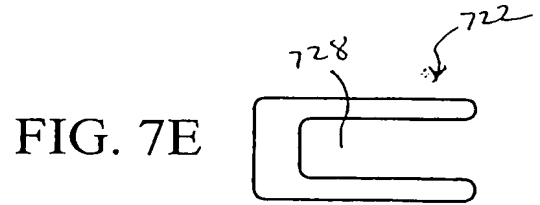


FIG. 7E

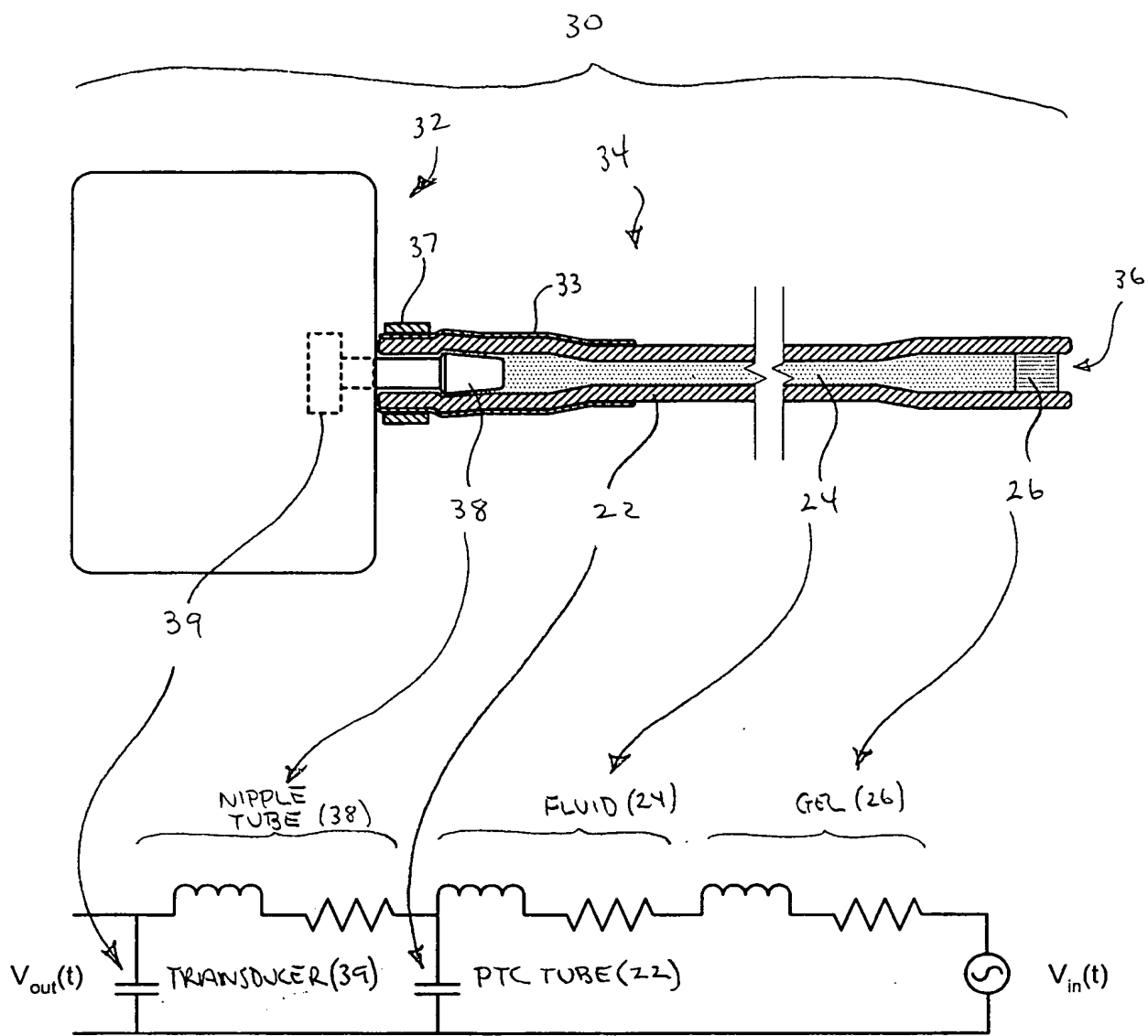
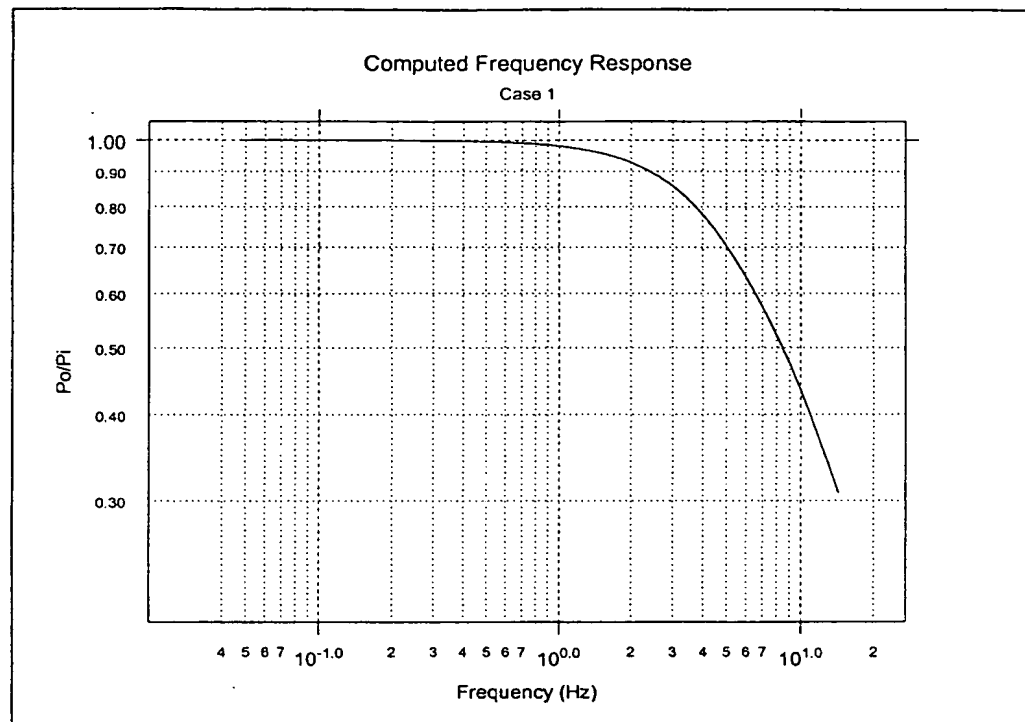


FIG. 9



Computed Frequency Response of the PTC / Sensor Combination
Described as Case 1 in Table 1.

FIG. 10

Table 1: Summary of the Various Catheter Configurations Considered

Parameter	Case 1	Case 2	Case 3	Case 4	Case 5
Catheter length (mm)	15	20	15	15	20
Gel plug length (mm)	4	5	5	5	5
Nipple tube length (mm)	6	6	6	6	6
Catheter I.D. (thousandths of an inch)	20	20	20	15	15
Catheter O.D. (thousandths of an inch)	50	50	50	45	45
Tip I.D. (thousandths of an inch)	44	44	20	15	15
Tip O.D. (thousandths of an inch)	70	70	50	45	45
Nipple tube I.D. (thousandths of an inch)	15	15	15	15	15
Fill fluid viscosity (cP)	4000 (similar to glycerin)	4000	350 (similar to Nusil Med 400)	350	350
Gel viscosity (cP)	40000	40000	23000	25000	18000
Fill fluid specific gravity	1.4	1.4	1.4	1.4	1.4
Gel specific gravity	1.0	1.0	1.0	1.0	1.0
Elastic modulus of catheter (psi)	5000	10000	5000	10000	20000
Pressure compliance of sensor (m^3/Pa)	1.0 e-16 (similar to Sensoror sensor)	1.0 e-16	1.0 e-16	1.0 e-16	1.0 e-16

FIG. 11